REMARKS

Applicant wishes to thank the Examiner for the attention accorded to the instant application, and respectfully requests reconsideration of the application as amended.

Formal Matters

Claims 1 and 7-11 are currently pending in the application. Independent Claim 1 is amended. In particular, independent Claim 1 is amended to more clearly recite an aspect of the invention by reciting, "the plurality of ultrasound transducers being configured to provide, in concert, a curved profile along the longitudinal axis of the catheter and adjacent to the distal portion of the catheter". Support for the amendment is found, for example, at Page 19, Line 23 to Page 20, Line 9 of the specification and FIG. 5B of the drawings, as originally filed. Care has been taken to ensure no new matter is being entered.

Specification

Applicant amends the specification to correct minor errors. Specifically, replacement paragraph for the paragraph, at Page 15, Line 19 through Page 16, Line 1,is submitted. Care has been taken to ensure no new matter is being entered.

Rejection of Claims Under 35 U.S.C. §112

Claims 1 and 7-11 are rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. Specifically, the Examiner asserts that there is no support in the original disclosure for transducers arranged on a plane orthogonal to the longitudinal axis, which can treat tissue at an azimuth with respect to the longitudinal axis.

Claims 1 and 7-11 are further rejected under 35 U.S.C. § 112, second paragraph, as allegedly indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention. Specifically, the Examiner asserts that it is unclear how circumferentially arranged transducers that are mounted on a plane orthogonal to the longitudinal axis of the device may treat tissue located in a range of azimuths with respect to the longitudinal axis.

Applicant respectfully traverses this rejection. However, in an effort to expedite prosecution, Applicant has amended Claim 1 to cancel the language of "on a plane orthogonal to the longitudinal axis" from the claim.

Furthermore, Applicant respectfully submits that Claim 1, as currently amended, is fully supported by the original disclosure. Specifically, Claim 1 is amended to recite, "the plurality of ultrasound transducers being configured to provide, in concert, a curved profile along the longitudinal axis of the catheter and adjacent to the distal portion of the catheter". Applicant respectfully submits that an exemplary embodiment, such as the tumor ablation device shown in FIG. 5B of the application, provides support for the above amendments to Claim 1.

The original disclosure of the present application further describes that "Device 60 ... can be pushed partially or completely into the tumor prior to or during treatment. This may be advantageous for both imaging the tumor and the ablating the tumor with ultrasound" (Page 19, Line 33 to Page 20, Line 3 of the original disclosure, emphasis added). Applicant respectfully submits that the disposition of the device partially or completely into the tumor allows the device to selectively treat tissues in a range of azimuths with respect to the longitudinal axis.

Applicant respectfully submits that the claims, as currently amended, are not indefinite but each claim particularly points out and distinctly claims the subject matter which

applicant regards as the invention. Furthermore, the claims, as currently amended, are fully supported by the original disclosure of the present application.

Accordingly, withdrawal of the above rejections is respectfully requested.

Rejection of Claims Under 35 U.S.C. §103

Claims 1 and 7-11 are rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. Patent Application Publication No. 2004/0254570 to Hadjicostis et al., (hereinafter "Hadjicostis") in view of U.S. Patent No. 5,273,045 to Chihara et al., (hereinafter "Chihara"). This rejection should be withdrawn based on the comments and remarks herein.

Applicant respectfully submits that neither Hadjicostis nor Chihara, applied individually or in combination as alleged by the Examiner, teach or suggest the combination of features recited in Claim 1.

Claim 1 recites an apparatus for use with a subject. The apparatus includes, *inter alia*, a catheter having a longitudinal axis and having a distal portion, and an ultrasound array arranged to the distal portion of the catheter. The ultrasound array includes, *inter alia*, a plurality of ultrasound transducers, being circumferentially arranged around the longitudinal axis and adapted to operate in a phased array mode to apply ablating energy to tissue of the subject located in a range of azimuths, with respect to the longitudinal axis, that is less than 360 degrees. The plurality of ultrasound transducers are configured to provide, in concert, a curved profile along the longitudinal axis of the catheter and adjacent to the distal portion of the catheter.

Hadjicostis, as presently understood by Applicant, describes a catheter system (70) including a transducer device (90) adapted to be inserted into an esophagus. The transducer device (90) includes a substrate (94) and an annular ablation array (100) supported by the substrate and disposed around a central axis of the device. The annular ablation array can be

activated to ablate tissue of the esophagus. Specifically, the substrate and the ablation array are shaped generally in the form of a right circular cylinder, as shown in FIG. 3 of Hadjicostis. Thus, the transducer device of Hadjicostis does not provide a curved profile along the central axis of the device.

In contrast, Claim 1 recites a plurality of ultrasound transducers "being circumferentially arranged around the longitudinal axis and adapted to operate in a phased array mode to apply ablating energy to tissue of the subject located in a range of azimuths, with respect to the longitudinal axis, that is less than 360 degrees, the plurality of ultrasound transducers being configured to provide, in concert, a curved profile along the longitudinal axis of the catheter and adjacent to the distal portion of the catheter".

Chihara is relied on for the alleged teaching of a transducer array arranged orthogonally to the central axis of a device. The alleged teaching of Chihara does not remedy the underlying deficiencies of Hadjicostis with respect to Claim 1 of the present application. Specifically, Chihara teaches that a plurality of transducer segments (402) are arranged to provide a substantially cylindrical profile (*see*, Fig. 5 of Chihara). Nowhere does Chihara teach or suggest an array of ultrasound transducers being configured to provide, in concert, a curved profile along an axis of the catheter and adjacent to the distal portion of the catheter.

Therefore, neither Hadjicostis nor Chihara, applied individually or in combination as alleged by the Examiner, teach or suggest the combination of features recited in Claim 1, from which Claims 7-11 depend.

Accordingly, withdrawal of the rejection of Claims 1 and 7-11 under 35 U.S.C. § 103(a) based on the combination of Hadjicostis and Chihara is respectfully requested.

Conclusion

For at least the reasons set forth in the foregoing discussion, Applicant believes that the application is now allowable, and respectfully requests that the Examiner reconsider the rejection and allow the application. Should the Examiner have any questions regarding this Amendment, or regarding the application generally, the Examiner is invited to telephone the undersigned attorney.

Respectfully submitted,

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